

**CONTRIBUTION TO THE STUDY
OF AQUATIC BEETLES (COLEOPTERA).
V. REVISION OF INDIAN SPECIES
OF HYPHOPORUS SHARP (DYSTICIDAE)***

By T. G. VAZIRANI

INTRODUCTION

The genus *Hyphoporus* belongs to the generic complex comprising six genera *Coelambus*, *Hygrotus*, *Hyphoporus*, *Herophydrus*, *Heroceras* and *Pseudohydrovatus*, all of which have the base of epipleurae limited behind by an oblique ridge.

The genera *Coelambus*¹ and *Hygrotus* are predominantly Palaearctic and Nearctic in distribution, a few species of the former extend to N. W. Himalayas in India (which faunistically has predominantly palaearctic affinities even in case of endemic species) and also to North Africa and Atlantic archipelago. A single species of *Hygrotus* extends to N. Africa but none to N. W. Himalayas as far as is known. The genus *Pseudohydrovatus* is monotypical and endemic in Angola with quite close affinities to *Hygrotus*.

The genus *Herophydrus* dominates in tropical parts of Africa and *Hyphoporus* likewise dominates tropical parts of the Oriental region. A single species of *Hyphoporus* (*solieri* Aubé) occurs in Egypt, while 2 spp. of *Herophydrus* (*musicus* Klug and *rufus* Clerk) occur in India and Southern China in the Oriental region.

SHARP (1882), because of the close affinities between this group of genera, did not provide any dichotomous key to separate them. The only character which separates *Hyphoporus* from *Herophydrus* (on the basis of SHARP's description of these genera) is the shape of elytral ligula as shown under :

External ligula free and abrupt.....	<i>Hyphoporus</i>
Elytral ligula abrupt on posterior face, gradually raised in front....	<i>Herophydrus</i>

The vagueness of this character is obvious, apart from the difficulty of separating elytra for examination of ligula. The species which is now referred to as *Herophydrus musicus* (Klug) was placed by him under *Coelambus* on the basis of terminal joint of protarsi not very short in comparison with 3rd joint, although often much concealed.

GUIGNOT (1954 a, 1954 b) has referred the same species *musicus* to *Hypho-*

* This work has been completed under the award of French Government Scholarship, to whom am highly thankful.

1. Considered a subgenus of *Hygrotus* by some authors.

phorus and *Herophydrus* respectively, being obviously confused to place it in the correct genus. In (1959) he has separated the 2 genera as under, and recharacterised these genera.

Punctuation on head spread out up to posterior margin, penis asymmetrical and very slender *Hyphoporus*

Punctuation on head effaced in a transverse band behind the eyes, and replaced by unique alutaceous or microscopical aciculation or exceptionally larger points than rest of head. Penis symmetrical or not symmetrical but not slender at apex.... *Herophydrus*

But on page 339 under note 249 he (GUIGNOT, 1959), interalia, states that both *rufus* and *musicus* can not be separated from *Hyphoporus* on the basis of cervical area being unpunctate in the genus *Herophydrus*. Thus we are left only with a single character viz. shape of genitalia, on which to place the species in various genera, which indeed is not a happy position. This point is further discussed below under grouping of species. At present genitalic characters are the only basis on which the overlapping species can be separated, though their dominance of respective zoogeographical regions can be a factor for consideration.

GROUPING OF SPECIES

SHARP (1882) placed 3 species under this genus viz. *aper* Sharp, *elevatus* Sharp and *solieri* Aubé which he had examined and described. He also remarked that *Hydroporus interpulsus* Walker and *Hyphydrus rufus* Clark may also be placed under this genus. The position regarding *Hydroporus interpulsus* Walker is rather uncertain, the type is not available for study in British Mus., but *rufus* has been placed by GUIGNOT (1959) under *Herophydrus* and I agree with him, having examined "Type" specimen and other collections.

SHARP (*l.c.*) however did not consider the species known to him as homogeneous and said that *Hydroporus solieri* was not so Hyphydroid as its allies and envisaged the possibility of separating species into 2 distinct aggregates.

Since SHARP's 3 species, the number of species referred to this genus at present has risen to 15 and 6 other species are described below, raising number of known species to 21.

These species can be divided into 2 main groups as under :

- ♂ with fore tarsi darker than femora and tibiae (which are generally testaceous); penis with ventral lobe, ventral side darker than dorsal side..... Gr. 1
- ♂ fore tarsi concolorous with femora and tibiae; penis without ventral lobe, ventral side not darker than dorsal side..... Gr. 2

Group 1. It is more or less a homogeneous group with exception of *kempi* which is near to group 2 in form of penis. Except *pugnator* (endemic in Ceylon), which has a broader form, all other species are similar in form i.e. oval and slightly attenuated anteriorly as well as posteriorly.

In elytral punctuation on dorsal surface, 3 species viz. *nilghiricus*, *aper* and *pacistanus* represent a semistubbed condition, largely due to reticulation being well impressed.

Only in one species, *dehraduni* n. sp., punctuation is simple, while all other

species show distinctly double punctation. Here there are all the stages of size in minor punctures, from minute size to about half the size of larger punctures. It is difficult to say which condition is more primitive.

Group 2. This is however not a very homogeneous group. Two species viz. *bengalensis* and *subaequalis* n. sp. stand apart from other species in the shape of clypeus which is not so broadly thickened as in other species and is grooved behind the clypeus. Three other species have punctation on elytra simple, while the remaining five species have distinctly double punctation on the elytra.

DOUBTFUL SPECIES

Out of these 21 species *Hyphoporus interpulsus* Walker *nec* Clark (ZIMMERMANN, 1920, is in error) is considered a doubtful species. Its Type which should be in the British Museum is not available there any more. I am informed by Mr. J. BALFOUR-BROWNE that he has found it missing from there since 1935. I have examined the unique "Type" specimen of *Hyphoporus elegans* Regimbart at the Museo Civico Di Storia Naturale, Genova, and it is a female example ; it has lateral sides of pronotum slightly sinuate in the middle, a character which does not occur in any other species of the genus. I feel this is an aberration in this particular specimen. *Hyphoporus rotundatus* Gschwendtner is known from Formosa and is reported to be near to *rufus* Clark, which now belongs to the genus *Herophydrus*. The "Type" of *rufus* Clark is supposed to be in Linz Museum, Austria, and has not been available for examination but the species may belong to the genus *Herophydrus*. The remaining 18 species are included in the key here.

Acknowledgements

I am highly grateful to Professor A. S. BALACHOWSKY, for his keen interest in my work and his constant encouragement. I am also thankful to Dr. A. P. KAPUR, Director, Zoological Survey of India, Calcutta ; Dr. R. D. POPE and Dr. J. BALFOUR-BROWNE of British Museum (Natural History), London ; and to Professor E. TORTONESE of Museo Civico Di Storia Naturale, Genova, for kindly allowing me to examine collections in their respective museums. Thanks are also due to M. L. MATILE and M. R. BENARD of Laboratoire d'Entomologie, Muséum National d'Histoire Naturelle, Paris for their kind courtesies and help of diverse nature.

KEY TO SPECIES OF *Hyphoporus* (FOR MALES ONLY)¹

- 1. Protarsi generally black, darker than femora and tibiae..... 2. (Gr. 1)
Protarsi generally testaceous, concolorous with femora and tibiae.. 10. (Gr. 2)
- 2. Punctation on elytra large, profound, almost semistubbed condition (due to profound reticulation)..... 3.

1. Except in case of *subaequalis* sp. nov.

- Punctuation on elytra simple or double, but not semistubbed condition (reticulation distinct but less profound)..... 5.
3. Head with black band along the posterior margin of vertex ; size 4.5-5.0 mm.
nilghiricus
- Head not black along the posterior margin of vertex ; size 3.8-4.5 mm..... 4.
4. Pronotum with black band along anterior margin ; punctuation on elytra moderate, very strong and coalescent ; size 3.8-4.4 mm..... *aper*
- Pronotum without black band along anterior border ; punctuation on elytra larger ; size 4.1-4.5 mm..... *pacistanus*
5. Punctuation on elytra simple, not double..... *dehraduni* n. sp.
- Punctuation on elytra distinctly double..... 6.
6. Penis without ventral lobe/protrusion (fig. 3) ; clypeus slightly concave anteriorly.
kempi
- Penis with ventral lobe/protrusion ; clypeus truncate but not concave anteriorly. 7.
7. Punctuation on pronotum confluent posteriorly..... 8.
- Punctuation on pronotum not confluent posteriorly..... *tonkinensis*
8. Punctuation on elytra larger and more profound ; minor punctures minute, more numerous than major punctures..... 9.
- Punctuation on elytra smaller, minor punctures not minute and almost equal in number to major punctures ; punctuation rather irregular..... *caliginosus*
9. Form a little broader, colour a little darker ; penis (figs. 6, 18) with dorsal borders a little closer together in the middle ; size 4.3 mm..... *montanus*
- Form a little narrower, colour paler ; penis (figs. 11, 21) with dorsal borders not coming closer together in the middle, apex a little deviated to right ; size 4.75-5.0 mm..... *pugnator*
10. Length 3.5-4.0 mm. ; clypeus narrowly ridged and grooved behind the ridge.. 11.
- Length 4.4-5.9 mm. ; clypeus thickened anteriorly..... 12.
11. Punctuation on head feeble, almost effaced on the vertex behind the line between posterior border of eyes (cervical area) ; punctuation on elytra subequal and separated by at least its own diameter..... *subaequalis* n. sp.
- Punctuation on head moderately strong, not effaced on the head in cervical area ; punctuation on elytra distinctly double and more dense..... *bengalensis*
12. Punctuation on elytra almost simple..... 13.
- Punctuation on elytra distinctly double..... 15.
13. Head and pronotum feebly punctate ; posterior angles of pronotum more rounded ; dorsal borders of penis (fig. 10, 23) narrowed in the middle ; size 4.4-4.9 mm.
bertrandi n. sp.
- Head and pronotum moderately-strongly punctate ; posterior angles of pronotum not so rounded ; dorsal borders of penis not narrowed in the middle..... 14.
14. Punctuation on elytra more dense and more regular ; pronoto-elytral angle more distinct ; dorsal borders of penis sinuate (fig. 1) ; size 4.8-5.3 mm..... *severini*
- Punctuation on elytra less dense, rather irregular ; pronoto-elytral angle not so distinct ; sinuation of dorsal borders of penis different (fig. 13, 25) ; size 4.5-5.2 mm..... *solieri*
15. Head with black spot on the vertex..... *geetae* n. sp.
- Head without black spot on the vertex..... 16.
16. Penis globular at apex ; size 4.9-5.3 mm..... *elevatus*
- Penis not globular at apex..... 17.

17. Sides of pronotum substraight ; right dorsal border of penis (fig. 14) not distinctly sinuate ; size 4.3 mm..... *joephi* n. sp.
Sides of pronotum subarched ; right dorsal side of penis (fig. 9) distinctly sinuate ; size 5.1-5.6 mm..... *anitae* n. sp.

Hyphoporus rotundatus Gschwendtner from Formosa has not been included in the key because it is not available for study. It is stated to be near to *rufus* Clark which is now placed in the genus *Herophydrus*.

1. *Hyphoporus nilghiricus* Regimbart

1903. *Hyphoporus nilghiricus* Regimbart, *Ann. Soc. ent. Fr.*, **72** : 331 (Coonoor, Nilghiris).

1920. *Hyphoporus nilghiricus* : ZIMMERMANN, *Coleoptm. Cat.*, **4** : 72.

1954. *Hyphoporus nilghiricus* : GUIGNOT, *Opusc. ent.*, **19** : 221 (W. Pakistan).

In Press. *Hyphoporus nilghiricus* : VAZIRANI, *Rec. Zool. Surv. India*, **62** (1964) : (Rajasthan).

Paris Mus. — 7 ex. Nilgiris (Syntype material, ♂ designated as lectotype) ; 9 ex. Ootacammand, — xi.1932 ; 1 ex. Ceylon.

Brit. Mus. — 19 ex. Nilgiri hills (ANDREWS).

Z.S.I. — BIHAR : Damra R., Santal Parganas, 2.iii.1938 (H.S.R. & H.A.H.)
1 ex.

ORISSA : Dhenkanal Dist. : Jarpara, 5.xii.1955 (T. G. VAZIRANI)
2 ex.

MANDRAS ; COONOOR, — vi. 1912 (SEWELL) 1 ex.

RAJASTHAN : Nawa, 15.xi.1956 (B. BISWAS) 1 ex. ; Jogmandi Jharna, 3.iii.1948, 14 ex. ; Mt. Abu, 8.iii.1948, 7 ex. ; same locality, 10.iii.1948 1 ex. ; — iii.1948, 50 ex. (all K. S. PRADHAN colln.)

Length 4.5 — 5.0 mm. Form regularly oval and moderately elongate.

Head reddish-brown, transversely black along the posterior margin ; punctation fine and dense, almost regular ; reticulation distinct ; clypeus thickened anteriorly, slightly concave in the middle of the anterior margin, thickened area with minute and scattered punctures.

Pronotum testaceous, with a brown narrow band along the anterior and posterior borders ; punctation larger and denser than on the head, longitudinally confluent posteriorly ; sides rebordered and semi-arched ; posterior angles rounded.

Elytra testaceous with the brown markings somewhat distinct, constituting a narrow sutural line and many elongate spots arranged in rows, irregular and some of them coalescent ; punctation double, very dense, the larger punctures semi-stubbed and smaller more numerous and very minute.

Ventral side ferruginous, epipleurae paler. *Male*, dorsal side comparatively brilliant, punctation on pronotum a little stronger and confluent towards the base ; tarsal segments of the anterior and middle legs black ; penis (text-fig. 2, 15) a little inflexed on the dorsal side, dorsal borders asymmetrical, narrowed towards the base and apex.

REMARKS. — In its semi-stubbed punctation on the elytra, this species comes near to *H. aper* and *H. pacistanus*, but is a little larger than both of them and also has the penis differently shaped.

DISTRIBUTION. — India, W. Pakistan.

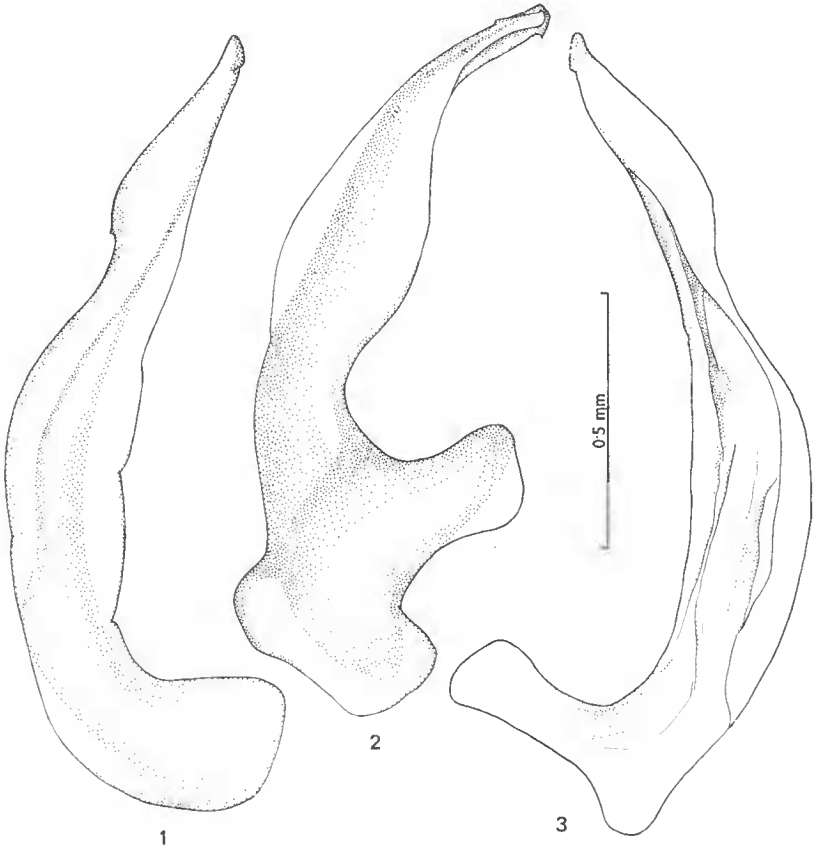


FIG. 1-3. — Lateral view of penis of : 1, *Hyphoporus severini*; 2, *H. nilghiricus*; 3, *H. kempii*.

2. *Hyphoporus aper* Sharp

1882. *Hyphoporus aper* Sharp, *Sci. Trans. R. Dublin. Soc.*, 2 : 390 (N. India).

1899. *Hyphoporus aper* : REGIMBART, *Ann. Soc. ent. Fr.*, 68 : 204 (India : Barway).

1920. *Hyphoporus aper* : ZIMMERMANN, *Coleoptm. Cat.*, 4 : 72.

Paris Mus. — 11 ex., Khandesh ; 4 ex., Barway.

Brit. Mus. — "Type", ♀, N. India ; 11 ex., S. India : Kanara (T. R. BELL).

Z.S.I. — BIHAR : Brahmani R., Saldaha, 22.xi.1938 (H. A. HAFIZ) 1 ex. ;
Pathro R., Madhupur, 22.xii.1953 (A.P.K. & G.M.) 1 ex. ; Manbhum
(HALLOWES) 1 ex.

MADHYA PRADESH : Nerbudda Survey, Mandla, 21.v.1927, 2 ex. ;
same locality, 23.v.1927, 4 ex. ; Rewa Dist. : — ii.1927, 53 ex.
(all H. S. PRUTHI colln.) ; 2.vi.1927, 2 ex. ; 8.vi.1927 (B. N. CHOPRA)
1 ex.

PUNJAB : 21.v.1926 (S. L. HORA) 1 ex.

UTTAR PRADESH : Rihand : Rihand Reservoir Survey, Mirzapur, 6.iv.
1947, 15 ex. ; same locality, 27.iv.1947, 1 ex. ; 28.iv.1947, 20 ex. ;
29.iv.1947, 20 ex. ; 30.iv.1947, 17 ex. (all H. A. HAFIZ colln.) ;
Pepri, Rihand R., 18.iv.1948, 4 ex. ; Rihand R., Mirzapur Dist. :
21.xii.1947 (K. S. MISRA) 4 ex.

W. BENGAL : Calcutta (Mus. Collr.) 1 ex.

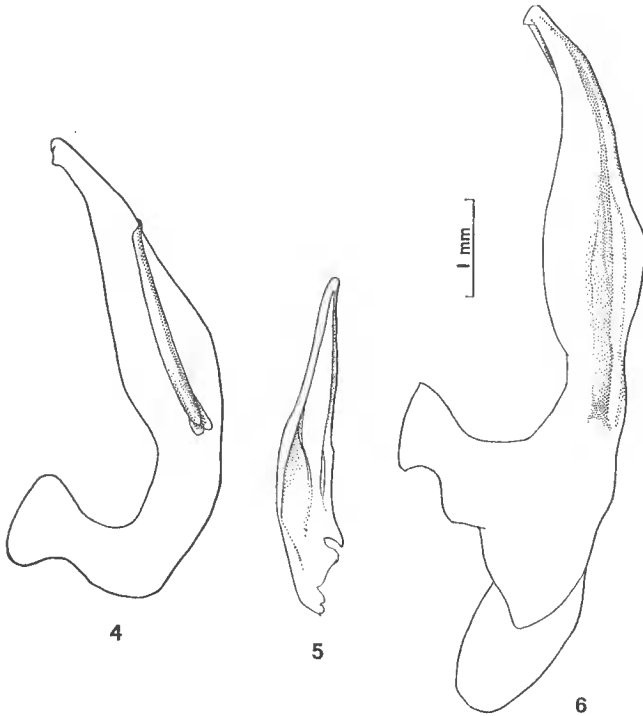


FIG. 4-6. — Lateral view of penis of : 4, *Hyphopus asper* ; 5, *H. bengalensis* ; 6, *H. montanus*.

Length 3.8 — 4.4 mm. Form oblong, oval, attenuated posteriorly from the pronoto-elytral angle.

Head reddish ; punctuation fine, regular, moderately dense ; reticulation fine and distinct ; clypeus rather thickened, truncate in the middle, the thickened area almost impunctate.

Pronotum reddish, with a black band along the anterior border ; punctuation stronger and much denser than on the head, mostly longitudinally confluent towards the base ; sides moderately arched and narrowly rebordered ; posterior angles rounded.

Elytra reddish with the brown markings indeterminate, constituting a small basal band and longitudinal indistinct spots; punctation double, larger punctures very large and very dense, nearly semi-stubbed condition; small punctures minute and numerous; reticulation fine.

Ventral side ferruginous; punctation on metasternum strong and dense, somewhat less strong on the abdominal sternites; reticulation rough. *Male*, dorsal side brilliant; punctation towards the base of pronotum confluent and generally stronger than in female; anterior and middle tarsi dark brown; claws dissimilar, the inner claw smaller and more strongly arched. Penis (Text-figs. 4, 16) broad in the middle, narrowed to base and apex, a little inflexed on the dorsal side, the borders almost symmetrical.

Female: dorsal side dull, punctation less strong, than in ♂ but more regular; reticulation on dorsal surface more impressed; anterior and middle tarsal segments concolorous.

REMARKS. — In the semi-stubbed punctation on clytra, this species comes close to *H. pacistanus* but differs in having smaller punctures on the elytra.

DISTRIBUTION. — India.

3. *Hyphoporus pacistanus* Guignot

1959. *Hyphoporus pacistanus* Guignot, *Bull. mens. Soc. linn. Lyon.*, 28 : 10 (Rawalpindi).

Paris Mus. — 2 ex., Rawalpindi (Paratypes).

Length 4.1 — 4.5 mm. Form oval, largely dilated anteriorly, attenuated posteriorly from the pronoto-elytral angle.

Head testaceous, punctation fine and very dense; surface microreticulate; clypeus thickened anteriorly, a little concave in the middle, punctation on the thickened part hardly visible.

Pronotum testaceous, with a transverse brown band along the anterior and posterior borders; punctation moderately strong and very dense; sides sub-arched and narrowly rebordered; posterior angles rounded.

Elytra testaceous, with the brown markings indeterminate constituting a basal mottled band, a sutural line and many elongate spots, irregular, more or less coalescent; punctation double and very dense, the large punctures semi-stubbed, the small more numerous and very much smaller; lateral borders feebly curved to the apex.

Ventral side ferruginous to blackish; strongly and densely punctate; the surface obsoletely micro-reticulate, punctation a little stronger and surface smoother on the metasternum than on the abdomen.

Male: dorsal side brilliant, punctation a little stronger and confluent at the base of the elytra; anterior and middle tarsi black, strongly dilated, inner claw more strongly arched. Penis a little inflexed on the dorsal side, largely asymmetrical, narrowed towards the base and apex, strongly blunt with the two borders sinuate specially on the right side.

Female : dorsal side dull and micro-reticulate, punctation a little more profound but not confluent ; anterior and middle tarsi concolorous with tibiae and femora.

REMARKS. — This species comes close to *H. aper*, but it differs from it in having the punctation larger and in the case of ♂ the micro-reticulation on pronotum and elytra is comparatively very fine and somewhat apparent.

DISTRIBUTION. — W. Pakistan.

4. *Hyphoporus dehraduni* sp. nov.

HOLOTYPE ♂ India : Dehra Dun, Kumaon Himalaya, 1940-1945.

Paratype ♀ with same particulars, in Paris Museum.

Length 4.2 — 4.4 mm. Breadth 2.5 — 2.6 mm.

Head ferruginous, rather shining ; clypeus thickened, truncate in middle with fine scattered punctures and distinct micro-reticulation ; surface distinctly microreticulate ; punctation strong, regular and dense separated by less than its own diameter.

Pronotum ferruginous, rather shining ; narrowly and feebly darker in the middle of the posterior margin ; punctation stronger than on the head, almost regular, posteriorly confluent ; sides narrowly rebordered and sub-arched ; posterior angles rounded, slightly obtuse.

Elytra ferruginous, narrowly black along sutural margin, scutellar region also black ; subsutural row of black punctiferous spots and a similar submarginal row in apical half present ; four longitudinal lines of black spots (2-3 times interrupted in the middle) rather vaguely defined and dull ; punctation double, major punctures almost regularly arranged, larger than on head, quite dense, minor punctures very minute visible with difficulty ; surface distinctly micro-reticulate.

Ventral side ferruginous, punctation on metacoxae very strong and dense, a little smaller and denser on abdominal sternites ; reticulation distinct giving the surface rough appearance.

Male : basal three segments of protarsi and mesotarsi feebly dilated ; protarsi and mesotarsi black, not concolorous with femora and tibiae ; penis (text-fig. 12, 17) with both dorsal borders sinuate and asymmetrical, apex slender and a little deviated to right.

Female : paler than male in colour ; reticulation more impressed giving surface dull/mat appearance.

REMARKS. — This species comes close to *pugnator* but differs from it in the punctation on the elytra being larger and penis more slender in apical half.

5. *Hyphoporus kempi* Gschwendtner

1936. *Hyphoporus kempi* Gschwendtner, *Rec. Indian Mus.*, **37** (1935) : 368-369 (Assam : Mangaldai, 4 ♂ ; Uttar Pradesh : Lucknow 1 ex.).

In press. *Hyphoporus kempi* : VAZIRANI, *Rec. Zool. Surv. India*, **62** (1964) : (Rajasthan).

Z.S.I. — ASSAM : Mangaldai, 3.2 Kilometres east of, 6.i.1911 (Type, now redesignated as Lectotype, Z.S.I. Reg. No. 4680/44); Paralectotypes : — 1 ex., same particulars as above; 1 ex., same locality, 8.i.1911 (all S. W. KEMP colln.).

RAJASTHAN : Sambhar lake, 20.ii.1956 (B. BISWAS) 17 ex.; same locality, 30.i.1958, 2 ex.; 11.iv.1958, 1 ex. (all T. G. VAZIRANI colln.); Nawa, 15.xi.1956, 1 ex.; Pali, 6.xii.1956, 2 ex. (all B. BISWAS colln.); Phulera, 11.iii.1958, 2 ex.; Gudha, 19.v.1958, 1 ex. (all T. G. VAZIRANI colln.).



FIG. 7-9. — Lateral view of penis of : 7, *Hlyphoporus elevatus* ; 8, *H. geetae* sp. nov. ; 9, *H. anitae* sp. nov.

Length 4.7 mm. Form oval, largely dilated in the anterior half, then attenuated backward from the pronoto-elytral angles.

Head testaceous, punctation fine and very dense; reticulation obsolete; clypeus moderately thickened, a little concave in the middle, thickened area impunctate.

Pronotum testaceous; punctation medium and very dense; sides slightly oblique, almost straight and narrowly rebordered.

Elytra testaceous, with the brown markings distinct, as under. — a sutural

line directed inwards along the base and several elongate spots arranged in 4 longitudinal rows, the inner 3 rows with 3-4 spots each and the outer row with 1-2 spots; punctation double, medium, dense, more or less irregular (larger and denser than on pronotum), major punctures profound and dense, minor punctures more than half the size of the larger punctures, equally profound and dense; reticulation distinct.

Ventral side ferruginous; punctation on metasternum and metacoxal plates rather profound and dense, on abdominal sternites slightly smaller but more dense.

Male: dorsal side comparatively brilliant; punctation on pronotum confluent towards the base; apical two segments of the anterior and middle tarsi darker than the others. Penis (text-fig. 3) asymmetrical, a little inflexed on the dorsal side, dorsal borders distinctly sinuate, strongly narrowed towards the apex, which is pointed and notched on the ventral side.

REMARKS. — Gschwendtner, *l.c.*, described this species on 4 examples collected from two different localities. 2 ex. from different localities were designated as types. I select ♂ from Mangaldai (Assam) as the lectotype and fix the same place as type locality, which was not done by the original author.

This species comes close to *H. montanus*, from which it can be distinguished by the clypeus being a little concave anteriorly as against truncate and in the ♂ the punctation on the pronotum is not confluent.

DISTRIBUTION. — India.

6. *Hyphoporus montanus* Regimbart

1899. *Hyphoporus montanus* Regimbart, *Ann. Soc. ent. Fr.*, **68**: 203 (Madras: Kodaikanal).

1920. *Hyphoporus montanus*: Zimmermann, *Coleoptm. Cat.*, **4**: 72.

Paris Mus. — 2 ex. ♂♂, Kodaikanal (Syntypes — 1 ex. designated Lectotype; 1 ex. Kodaikanal, 1953).

Brit. Mus. — 1 ex. ♂ Kodaikanal (J. Carterts), 1 ex., without locality.

Z.S.I. — MADRAS: Kodaikanal, —.viii.1922, 5 ex.; Palni hills, Pondat, 27.viii.1922, 4 ex. (all S. Kemp colln.); Eastern Ghats Survey, 20.22.vi.1929 (H. S. Pruthi) 8 ex.

Length 4.3 mm.

Head reddish-brown; punctation moderately strong, quite dense separated by nearly twice its own diameter; clypeus thickened anteriorly, truncated in the middle, thickened area with minute punctures.

Pronotum reddish-brown, with a black band along the anterior margin; punctation stronger and denser than on the head, punctures longitudinally confluent towards the base; the sides slightly convex and rather oblique; posterior angles obtuse.

Elytra reddish-brown, basal portion near the suture black, other black markings consisting of longitudinal indistinct and coalescent spots; punctation

double, larger than on the pronotum, irregular, on the disc separated by its own diameter, smaller punctures very minute, not numerous.

Ventral side ferruginous, abdominal sternites darker, epipleurae reddish; metasternum and metacoxal plates strongly punctate.

Male : with the tarsal segments of the anterior and middle legs black; penis (text-fig. 6, 18) a little inflexed on the dorsal side, narrowed towards the base and apex.

Female : tarsal segments of anterior and middle legs concolorous with femora and tibiae.

REMARKS. — This species comes very close to *H. kempfi* from which it can be distinguished by the clypeus being truncate anteriorly as against concave and the punctation on the pronotum is confluent posteriorly in the male.

DISTRIBUTION. — India.

7. *Hyphoporus caliginosus* Regimbart

1899. *Hyphoporus caliginosus* Regimbart, *Ann. Soc. ent. Fr.*, **68** : 203-204 (« Inde Méridionale »).

1920. *Hyphoporus caliginosus* : ZIMMERMANN, *Coleoptm. Cat.*, **4** : 72.

Paris Mus. — 2 ex. ♂♂, Ind. Mér. (Syntype — 1 ex. designated Lectotype); 3 ex. Indes; 2 ex., Shembaganur, Madure.

Z.S.I. — SOUTH INDIA : 11.vii.1885 (Father HONORÉ) 1 ex. ♀.

Length 4.3 mm.

Head testaceous, posterior border of the vertex narrowly black; punctation moderate, rather irregular and quite dense; reticulation distinct; clypeus narrowly rebordered, slightly raised and subrounded.

Pronotum testaceous, with a moderately broad transverse black band along the anterior and posterior borders; punctation moderate and very dense, some punctures confluent towards the base; sides somewhat oblique, very narrowly rebordered; posterior angles subrounded.

Elytra testaceous, with 4 longitudinal rows of black markings, rather indistinct, interrupted 2-3 times, narrow black sutural margin extending somewhat along the basal margin; punctation double, major punctures moderate and dense, minor punctures very few; reticulation obsolete.

Ventral side black, legs reddish.

Male : anterior tarsal segments blackish; pronotum with punctures confluent towards the base, penis text-fig. 19.

Female : reticulation more distinct and punctation almost simple.

REMARKS. — REGIMBART (1899) described the species from 2 ♂♂. The species has not been recorded since it was described.

It comes near to *H. pugnator*, from which it can be distinguished by its rather smaller size (4.3 mm v/s 4.7-5.0 mm) and punctation on elytra never coarse. REGIMBART, *l.c.*, considers that this species may prove to be synonym of *H. interpulsus* Walker, from Ceylon, the type of which is presumed to be lost.

DISTRIBUTION. — India.

8. *Hyphoporus pugnator* Sharp

1890. *Hyphoporus pugnator* Sharp, *Trans. ent. Soc. Lond.*, 1890 : 345 (Ceylon : Dikoya).

1899. *Hyphoporus pugnator* : REGIMBART, *Ann. Soc. ent. Fr.*, 68 : 202 (India : Nilghiris ; Ragpore ; Ceylon).

1920. *Hyphoporus pugnator* : ZIMMERMANN, *Coleoptm. Cat.*, 4 : 73.

Paris Mus. — 8 ex., Ceylon.

Brit. Mus. — ♂ Holotype, Ceylon : Dikoya, 26.i.1882 (LEWIS) ; 4 ex., "Cotype" (Paratype) with same particulars.

Length 4.75 — 5.0 mm. Form convex, oblong oval.

Head fawn coloured, with the posterior border of the vertex black ; punctuation on head sufficiently strong, very dense and almost regular ; clypeus thickened anteriorly, uninterrupted, very slightly elevated.

Pronotum fawn coloured with a transverse black band along the middle of the base ; punctuation larger and denser than on the head, confluent towards the base. Pronotum and elytra not in the same contour. Posterior angles rounded, sides a little oblique, more or less straight.

Elytra fawn coloured, longitudinal black spots variable, more or less interposed ; punctuation double, larger punctures profound, remarkably coarse, rather close and with a few fine punctures on the interstices.

Ventral side black, legs testaceous, metasternum strongly punctate with minute punctures giving it coarse appearance. Abdominal sternites also strongly punctate but less so.

Male : anterior tarsi, black and dilated, those of ♀ reddish and small ; penis as per text-fig. 11, 21.

REMARKS. — SHARP (1890) considers this species to be very near *H. interpulsus* Walker, from Ceylon, which has more scanty punctuation on the elytra. It comes near *caliginosus* which is a little smaller and without coarse punctuation on clytra.

DISTRIBUTION. — Ceylon, India.

9. *Hyphoporus bengalensis* Severin

1890. *Hyphoporus bengalensis* Severin, *Ann. Soc. ent. Belg.*, 34 : Bull (4) 12 : 204 (Bihar : Tetara ; Konbira — Brussels Mus.).

1899. *Hyphoporus bengalensis* : REGIMBART, *Ann. Soc. ent. Fr.*, 68 : 205-206, f. 9 (Bihar : Konbira ; Mandar).

1920. *Hyphoporus bengalensis* : ZIMMERMANN, *Coleoptm. Cat.*, 4 : 72.

Paris Mus. — 2 ex., ♂♀, "Konbir" ¹ (Cotype) ; 2 ex. Tetara ; 1 ex. Madras ; 7 ex. Konbir ; 1 ex. Mt. Parasnath.

1. The correct spelling of this place is KONBIRA and not "Konbir" as published earlier.

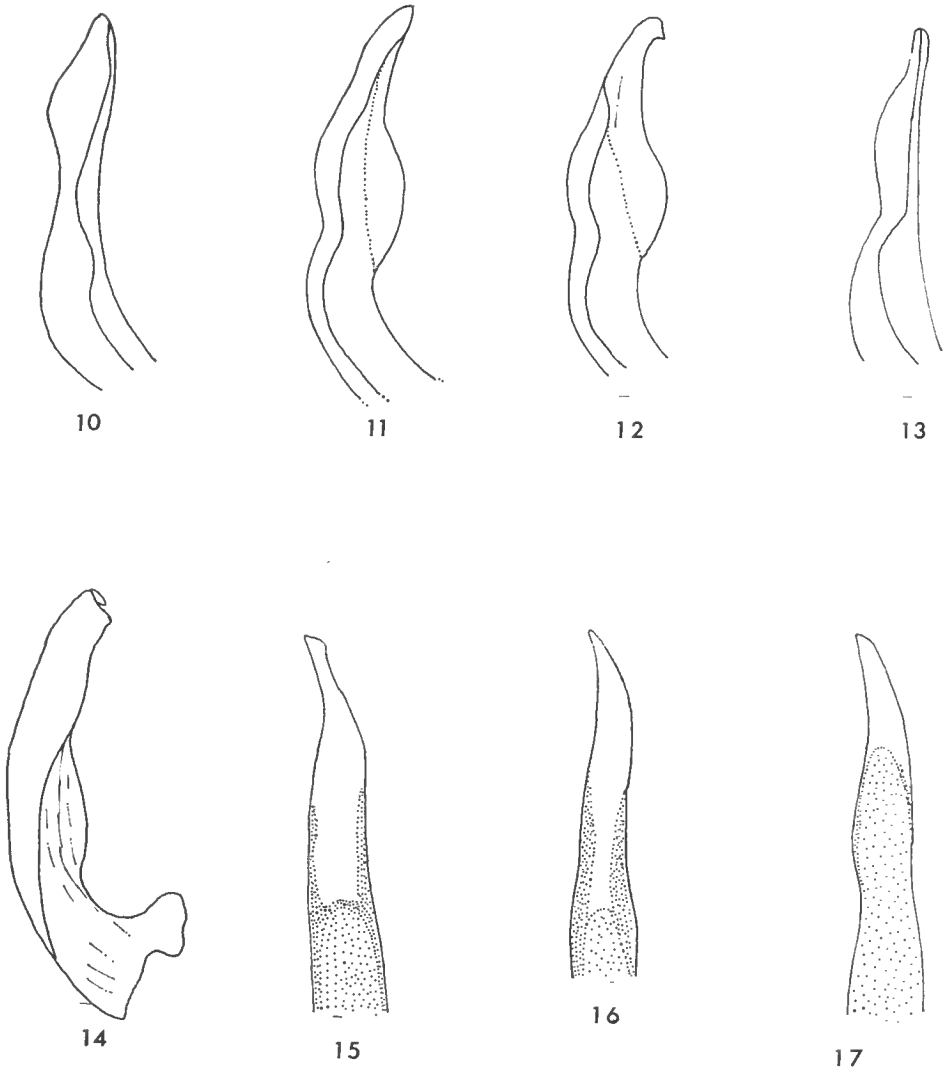


FIG. 10-14. — Lateral view of penis of : 10, *Hyphoporus bertrandi* sp. nov. ; 11, *H. pugnator* ; 12, *H. dehraduni* sp. nov., 13, *H. solieri* ; 14, *H. josephi* sp. nov.

FIG. 15-17. — Dorsal view of penis of : 15, *Hyphoporus nilghiricus* ; 16, *H. aper* ; 17, *H. dehraduni* sp. nov.

Z.S.I. — BIHAR : Ranchi Dist. : Konbira, 2 ex. ; Khunti, 17.ii.1954 (A. P. KAPUR) 3 ex. ; Ranchi 2.ii.1954 (A. P. KAPUR) 1 ex. ; Hazaribagh Dist. : Nimiaghat, 13.iv.1948 (T.B.S. & B.N.) 16 ex.

W. BENGAL : Berhampore, 13.iv.1910 (S. W. KEMP) 1 ex. ; Calcutta, (Mus. Colln.) 11 ex. ; same locality, 28.iii.1957 (S. ALI) 1 ex.

Length 3.5 — 4.0 mm.

Head testaceous ; punctation fine and dense ; reticulation obsolete ; clypeus subrounded, narrowly rebordered, thinner in the middle, thickened area with minute punctures and limited behind by means of a transverse groove.

Pronotum testaceous, punctation moderate and dense but not confluent ; sides sub-arched, narrowly rebordered.

Elytra testaceous, with the black markings as under. — a median, basal spot, sutural line and 4-5 longitudinal lines, mostly interrupted 2-3 times, sometimes confluent and obscure ; punctation distinctly double, major punctures separated by twice its own diameter, minor punctures fine, as numerous as the major punctures.

Ventral side testaceous.

Male : dorsal side comparatively shining ; anterior and middle tarsal segments concolorous with tibiae and femora ; penis (text-fig. 5, 22) comparatively small in size, broad at the base, narrowed towards the apex, dorsal sides largely symmetrical, apex nearly pointed.

Female : dull, with distinct reticulation on the dorsal surface.

REMARKS. — This is the smallest species of this genus occurring in India. It stands apart from other species with double punctation on elytra in (i) the character of clypeus being narrowly ridged and grooved behind (ii) penis is comparatively very small.

DISTRIBUTION. — India.

10. *Hyphoporus subaequalis* sp. nov.

= *Hyphoporus subaequalis* Regimbart (*in litt.*).

HOLOTYPE ♀ Burma : Pegu (Paris Museum).

Length 3.7 mm. Breadth 2.2 mm.

Head rufo-testaceous, shining ; punctation fine but feebly impressed, irregular almost effaced behind the eyes ; surface microreticulate ; clypeus thickened anteriorly, slightly raised, with a feeble groove posteriorly ; antennae testaceous.

Pronotum rufo-testaceous, shining ; punctation moderate, irregular but not so dense, sparse on the disc and denser posteriorly than anteriorly ; sides distinctly rebordered, sub-arched, posterior angles rounded ; reticulation obsolete, less impressed than on head.

Elytra rufo-testaceous, sutural margin broadly black, extending along 3/4th of basal margin, a small humeral spot and four longitudinal black lines (interrupted 2-3 times), middle 2 lines confluent anteriorly ; punctation moderate, shallow, subequal, separated by at least its own diameter.

Ventral side testaceous ; punctation large and quite dense.

Male : not known.

REMARKS. — This species comes close to *bengalensis* in the shape of clypeus and its post-clypeal groove. It can be distinguished from it by i. its feeble punctation on the head as against dense and strong punctation. ii. punctation on elytra less dense iii. sutural black line broader and extending along 3/4th of basal margin iv. reticulation on clytra obsolete v. form narrower and more oblong. Since punctation on head is effaced behind the eyes, this species can be placed in the closely allied genus *Herophydrus* but is placed in this genus because of its very close affinities to *bengalensis*. The only reliable character for separating these two genera is the shape of penis in which *bengalensis* appears to occupy an intermediate position.

11. *Hyphoporus bertrandi* sp. nov.

HOLOTYPE ♂, West Pakistan : Lahore, Ravi river, 13.xii.1927 (B.P. & B.N.C.)
Paratype ♀, with same particulars, in Zoological Survey of India, Calcutta.

Length 4.4 — 4.6 mm. Breadth 2.6 — 2.7 mm.

Head testaceous, shining ; clypeus thickened anteriorly, truncate and a little concave in the middle ; surface microreticulate ; punctation moderate but feeble, almost regular, separated by its own diameter.

Pronotum testaceous, shining, with a row of punctiferous black spots (some of them confluent laterally) in the middle of the posterior border ; punctation as on head ; surface distinctly microreticulate ; sides moderately rebordered, oblique and sub-straight ; posterior angles rounded ; pronoto-elytral angle not profound.

Elytra testaceous, shining, narrowly ferruginous along the sutural margin and 3/4 of basal margin, subsutural row of black punctiferous spots and a similar submarginal row in apical half also present ; four longitudinal black lines interrupted 2-3 times in the middle ; punctation simple quite strongly impressed, separated by its own diameter ; surface distinctly microreticulate.

Ventral side testaceous ; punctation large, quite dense but not so strong, rather feeble on metasternum and smaller on abdominal sternites ; coxal lines a little divergent anteriorly but not reaching the posterior border of the metasternum.

Male : with basal three segments of protarsi and mesotarsi feebly dilated ; protarsal and mesotarsal segments concolorous with tibiae and femora ; penis (text-fig. 10, 23) dorsal borders asymmetrical coming close together in the middle.

Female : with mat appearance.

REMARKS. — This species comes close to *solieri* and *severini* in the punctation on elytra being almost equal and dense but differs from them in the punctation on head and pronotum being more feeble, pronoto-elytral angle not so profound, posterior angles of pronotum more rounded. In the shape of penis it is nearer to *severini* but the dorsal borders which come close together in the middle distinguish it from that species. In dorsal view, penis of *severini* is very close to that of *solieri*.

12. *Hyphoporus severini* Regimbart

1892. *Hyphoporus severini* Regimbart, *Ann. Soc. ent. Belg.*, **36** : 115 (Bihar : Konbira — Nowatoli).

1899. *Hyphoporus severini* : REGIMBART, *Ann. Soc. ent. Fr.*, **68** : 202 (India : Bihar : Konbira ; U. P. : Moradabad ; Assam ; Pakistan : Sylhet).

1920. *Hyphoporus severini* : ZIMMERMANN, *Coleoptm. Cat.*, **4** : 73.

In press. *Hyphoporus severini* VAZIRANI, *Rec. Zool. Surv. India*, **62** (1964) : (Rajasthan).

Brit. Mus. — 6 ex., Konbira.

Z.S.I. — BIHAR : Ranchi Dist. : Konbira (P. CORDON) 1 ex. ; Dehri-on-Sone, — vi.1952 (C.I.F.R.S.) 1 ex.

RAJASTHAN : Gudha, 13.v.1958, 1 ex. ; Nawa, 19.v.1958, 1 ex. ; Koni, 24.v.1958, 1 ex. (all T. G. VAZIRANI colln.) ; Merta city, 31.xii.1956 (B. BISWAS) 5 ex. ; Megdasar tank, Jaisalmer Dist. 15.xii.1958 (K.K.T. & S.B.) 1 ex. ; Mount Abu, 7.iii.1948, 2 ex. ; same locality, 8.iii.1948, 4 ex. (all K. S. PRADHAN colln.).

UTTAR PRADESH : Lucknow, 29-30.1911 (KEMP) 4 ex. ; same locality, 2.i.1908, 1 ex. ; 22.i.1908, 2 ex. ; 3.ii.1908, 1 ex. ; 5.ii.1908, 1 ex. (all R. H. colln.).

W. PAKISTAN : Lahore, 13.xi.1908 (C. PAIVA) 1 ex. : Pathankote, 19.v.1926 (S. L. HORA) 2 ex. ; Seistan, Nasratabad, — xi.1918 (N.A. & S.K.) 2 ex.

Paris Mus. — 12 ex. ; Konbir (Syntype material, 1 ex., ♂ designated lectotype ; 2 ex. Tetara ; 5 ex. ; Mandar.

Length 4.8 — 5.3 mm.

Head testaceous ; punctuation moderately strong, rather irregular, quite dense ; micro-reticulate ; clypeus truncate anteriorly, thickened, punctuation in the thickened area hardly visible.

Pronotum testaceous, with a narrow, median, black posterior border ; punctuation moderately strong, very dense ; sides subarched, narrowly rebordered ; posterior angles rounded.

Elytra testaceous, with four longitudinal rows of black markings, interrupted 2-3 times, besides a very narrow black sutural margin, somewhat extending along the basal margin ; punctuation double, minor punctures about half the size of major punctures and about thrice in number, by no means minute ; interstices between punctures distinctly reticulate.

Ventral side testaceous.

Male : dorsal side brilliant, anterior and middle tarsi concolorous with the tibiae and femora, a little dilated ; anterior claws similar. Penis (text-fig. 1) a little inflexed on the dorsal side, largely asymmetrical, narrowed towards the base and apex, more so towards the apex, which is rather pointed. Female dorsal side comparatively dull, punctuation a little more profound.

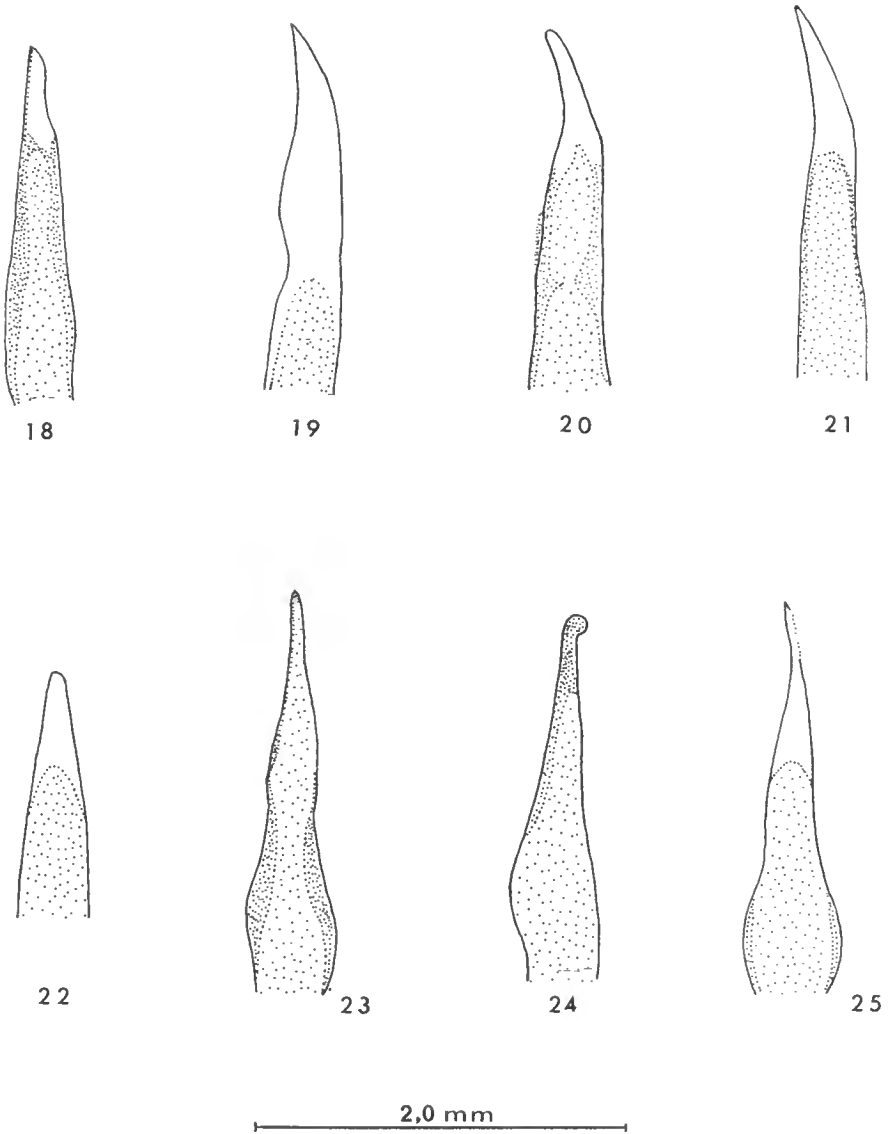


FIG. 18-25. — Dorsal view of penis of : 18, *Hyphoporus montanus* ; 19, *H. caliginosus* ; 20, *H. tonkinensis* ; 21, *H. pugnator* ; 22, *H. bengalensis* ; 23, *H. bertrandi* sp. nov. ; 24, *H. elevatus* ; 25, *H. solieri*.

REMARKS. — It comes quite close to *H. elevatus* in size, but can be distinguished by the punctation on elytra being less profound, minor punctures about half the size of major punctures versus minute and minor punctures less numerous.

DISTRIBUTION. — India, E. Pakistan.

13. *Hyhoporus geetae* sp. nov.

HOLOTYPE ; ♂, Bihar : Singhbhum Dist. : Prulia lake, 23.ii.1955 (A. P. KAPUR).
Paratype, 11 ex. with the same particulars as holotype in Z.S.I. 1 paratype
with same particulars in Paris Museum.

Length 4.6 — 4.9 mm.

Head rufo-testaceous, posteriorly on the vertex with large transverse black spot ; punctation very fine and sparse, rather irregular, separated by at least its own diameter ; reticulation invisible ; clypeus concave in the middle, thickened area distinctly and sparsely punctate.

Pronotum rufo-testaceous with some indeterminate markings, a transverse black band along the middle of the posterior border ; punctation medium, irregular, more profound in the posterior region, separated by 1-3 times their own diameter, some longitudinal striations also present ; sides narrowly rebordered, oblique, almost straight ; posterior angles sub-rounded.

Elytra rufo-testaceous, with black markings indeterminate, constituting a narrow sutural line and many elongate spots, more or less coalescent ; punctation distinctly double, major punctures moderately strong and moderately dense, minor punctures small but not minute, about equal in number.

Ventral side rufo-testaceous, metasternum profoundly and densely punctate.

Male : dorsal side comparatively brilliant ; anterior and middle tarsi concolorous with the femora and tibiae ; penis (text-fig. 8) very strongly narrowed from the basal one third to the pointed apex, laterally compressed.

Female : dorsal side comparatively dull, ventral side with the interstices between the punctures microreticulate.

REMARKS. — This species comes close to *H. elevatus*, from which it can be distinguished by : (i) its more brilliant colour ; (ii) punctation on elytra less profound and more sparse ; (iii) presence of black spot on the vertex ; (iv) finer punctation on the head ; (v) penis more or less pointed at apex as against globular at the apex.

14. *Hyhoporus anitae* sp. nov.

HOLOTYPE, ♂, W. Pakistan : Lahore, Ravi R., 13.xii.1927 (B.P. & B.N.C.).
Paratypes : (i) 13 ex. with the same particulars as the holotype ; (ii) Irrigation Reservoir, Quetta (Baluchistan) 10.xi.1918 (S.B.) 1 ex. ♂. All in Zoological Survey of India, Calcutta ; (iii) 1 paratype with same particulars as Holotype in Paris Museum.

Length 5.1 — 5.6 mm.

Head rufo-testaceous, punctation fine and quite close, rather irregular ; reticulation obsolete, clypeus thickened, truncate in the middle, thickened area minutely and separately punctate.

Pronotum rufo-testaceous, with some indeterminate darker patches and a transverse black band along the middle of the posterior border ; punctation medium, quite close, irregular, somewhat confluent posteriorly ; sides narrowly rebordered and sub-arched ; posterior angles subrounded.

Elytra rufo-testaceous, with black markings indeterminate, constituting a narrow sutural line, a basal mottled band and many elongate spots, irregular in shape and coalescent; punctuation double, major punctures quite profound and dense, minor punctures about half the size of major punctures, almost equal in number.

Ventral side rufo-testaceous; metasternum profoundly and densely punctate; surface microreticulate, abdomen less so.

Male: dorsal side comparatively brilliant; anterior and middle tarsi concolorous with the femora and tibiae, moderately broadened, claws similar. Penis as per text-figure 9.

Female: comparatively dull due to elytral punctuation more close and reticulation more impressed.

REMARKS. — This species comes close to *H. elevatus* and *H. geetae* sp. nov. From *elevatus* it can be distinguished by: (i) punctuation on pronotum and elytra more profound and dense; (ii) smaller punctures being larger; (iii) different shape of the penis. From *H. geetae* it can be distinguished by its larger size, differently shaped penis and punctuation on elytra more profound and dense.

DISTRIBUTION. — India.

15. *Hyphoporus elevatus* Sharp

1882. *Hyphoporus elevatus* Sharp, *Sci. Trans. R. Dublin. Soc.*, 2 : 390 (N. India).

1899. *Hyphoporus elevatus*: REGIMBART, *Ann. Soc. ent. Fr.*, 68 : 204 (Bihar: Konbira).

1920. *Hyphoporus elevatus*: ZIMMERMANN, *Coleoptm. Cat.*, 4 : 72.

Paris Museum. — 1 ex., Ajmer; 3 ex. Konbir; 1 ex. India Or.

Brit. Mus. — ♂ Holotype, N. India; 1 ex., Konbir; 1 ex., Delhi; 3 ex., India.

Z.S.I. — MADHYA PRADESH: Nerbudda Survey, Mandla, 2.vi.1927, 1 ex.; same locality, 3.vi.1927, 1 ex.; 8.vi.1927, 1 ex. (all B. N. CHOPRA colln.); Kollari, 3-9.ii.1927 (H. S. PRUTHI) 1 ex.; Motisal, 5.iii.1910 (Mus. Collr.) 1 ex.

PUNJAB: Pathankote, 18.v.1926 (S. L. HORA) 1 ex.

UTTAR PRADESH: Rihand R., Mirzapur, 30.iv.1947 (H. A. HAFIZ) 2 ex.

W. PAKISTAN: Temple tank, Lahore, 8.i.1919, 2 ex.

Length 4.9 — 5.3 mm.

Head testaceous; punctuation fine, separated by about its own diameter, rather irregular; reticulation distinct; clypeus thickly rebordered, anteriorly slightly concave in the middle, thickened area with very minute punctures.

Pronotum testaceous, with two transverse small, black, spots along the posterior border; punctuation double, minor punctures neither very much smaller nor much more numerous, punctures longitudinally confluent towards the posterior border; sides almost straight, very narrowly rebordered.

Elytra testaceous, with a narrow black sutural line and four longitudinal rows of black markings, interrupted 2-3 times and rather indistinct; punctation distinctly double, minor punctures minute, 4-5 times more numerous than larger punctures; reticulation obsolete.

Ventral side testaceous.

Male: anterior and middle tarsal segments concolorous with tibia and femora; penis (text-fig. 7, 24) not so broad, a little inflexed on the dorsal side, progressively narrowed anteriorly, apex globular.

Female: rather dull, reticulation more distinct.

REMARKS. — Among the species dealt with here, it comes close to *severini*, from which it can be distinguished by the elytral punctation being less profound and minor punctures being not so minute or so numerous. In the character of its penis, with globular apex, it stands apart from all other species.

DISTRIBUTION. — India.

16. *Hyphoporus josephi* sp. nov.

HOLOTYPE ♂, India: Assam: Tezpur, Cole park, 1.i.1966 (S.K.B. & A.N.T.J.) in the Zoological Survey of India.

Length 4.3 mm. Breadth 2.8 mm.

Head testaceous, shining; clypeus thickened, truncate and with microreticulation; punctation fine (rather moderate) more or less regularly arranged but effaced behind the posterior border of eyes, separated by 1-2 times its own diameter; surface microreticulate.

Pronotum testaceous; shining; transversely narrowly black in middle along posterior margin; punctation stronger than on head, irregularly arranged, larger and confluent posteriorly; sides moderately rebordered, oblique and sub-straight, posterior angles rounded, almost right-angled.

Elytra testaceous, shining, narrowly black along sutural margin in scutellar region and along 3/4th of basal margin, four longitudinal rows of interrupted (2-3 times) black lines; subsutural row of black punctiferous spots and a similar submarginal row in apical half present; punctation distinctly double, major punctures moderate and quite dense, minor punctures almost half the size of major punctures, equally dense and almost equal in number; surface microreticulate.

Ventral side testaceous; punctation on metasternum and metacoxae very large and very dense, on abdominal sternites less so.

Male: basal three segments of protarsi and mesotarsi feebly dilated, protarsi and mesotarsi concolorous with femora and tibiae; penis (text-fig. 14) dorsal borders asymmetrical but not so sinuate, apical portion moderately slender in dorsal view.

Female: not known.

REMARKS. — This species comes close to *anitae* in the elytral punctation and in absence of black spot on the vertex but differs from it in having sides

of pronotum substraight as against subarched. The differences are more apparent in the penis, which in *anitae* has right dorsal border distinctly sinuate but is almost smooth in this species.

DISTRIBUTION

There is considerable endemism in this genus. All the species except one are confined to the Oriental region and they occur in plains rather than in mountainous regions. Between the two groups of species, as shown above, group 1 species occur in southern parts of the Indian subcontinent and group 2 species occur in the northern parts, though these areas are not clearly defined because of any lack of barriers. Other points about the distribution are mentioned below.

(a) Only one species, *solieri*, belongs to the northern parts of the Ethiopian region. This species is closely allied to *severini* and *bertrandi* in having simple punctuation on the elytra. *H. severini* extends its range of distribution from Baluchistan to Bihar in the Indo-gangetic plains, while *bertrandi* is so far known from W. Pakistan : Lahore only.

(b) The Indo-gangetic plains have 11 species so far recorded ; 10 of these are endemic and only one species, *pugnator*, extends to Ceylon.

(c) Only 3 species are reported from S. India, 2 of them are endemic and 1 species extends to Ceylon and Indo-gangetic plains.

(d) Baluchistan has two species, both belonging to group 2 ; one endemic and the other more widely distributed.

(e) Burma has 2 endemic species, one is closely related to *bengalensis* occurring in North-East India, and two species form a separate sub-group.

(f) One species is endemic in Tonkin.

*Laboratoire d'Entomologie,
Muséum national d'Histoire naturelle, Paris.*

Résumé

Ce travail porte sur la systématique du genre *Hyphoporus* Sharp, qui est en grande partie limité à la région orientale. Six nouvelles espèces sont décrites, portant le total des espèces connues à 21, parmi lesquelles trois sont considérées comme douteuses. Les spécimens « Types » de toutes les espèces, sauf *H. solieri*, ont été examinés ; des Lectotypes ont été désignés chaque fois que c'était nécessaire et les espèces redécrites avec leurs caractères génitaux. La clé des espèces est principalement basée sur le sexe mâle. Les affinités des espèces ont été discutées, ainsi que leur répartition géographique.

Summary

This paper deals with the systematics of the genus *Hyphoporus* Sharp, which is mainly confined to the Oriental region. Six new species are described, brin-

ging the total number of known species to 21, out of which three species are considered doubtful. The "Type" specimens of all the species excepting *H. solieri* have been examined; Lectotypes have been designated wherever necessary and species re-described along with their genitalic characters. Key to species is generally based on the male sex only. Grouping of species and geographical distribution have been discussed.

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